

Remarks

The Final Office Action dated July 27, 2004 and Advisory Action dated November 15, 2004 have been carefully reviewed and the foregoing amendment has been made in consequence thereof.

Claims 1-5, 7-58, 60-76, 86-102, and 106-120 are pending in this application. Claims 1-76 stand rejected. Claims 86-102 and 106-120 are withdrawn from consideration. Claims 6 and 59 have been canceled.

In accordance with 37 C.F.R. 1.136(a), a two month extension of time is submitted herewith to extend the due date of the response to the Office Action dated July 27, 2004, for the above-identified patent application from October 27, 2004, through and including December 27, 2004. In accordance with 37 C.F.R. 1.17(a), authorization to charge a deposit account in the amount of \$450.00 to cover this extension of time request also is submitted herewith.

The rejection of Claims 1-21, 23-35, 37-64, 66-72, and 74-76 under 35 U.S.C. § 103(a) as being unpatentable over Spriggs et al. (US 6,421,571) in view of Maguire et al. (US 5,331,579) is respectfully traversed.

Spriggs et al. describe a system that includes a data acquisition module, a database module, a display module including a graphical user interface, and a utilities module. The data acquisition module includes a software module and a plurality of data collector modules to interface with data acquisition devices. The database module includes a relational database for storing the collected data and configuration information. The utilities module includes software modules that increase the communications abilities of the system.

Maguire et al. describe a deterministic, probabilistic and subjective modeling system designed to improve the performance of aging power plants. The system collects, stores, and displays data representative of the operating condition of the plant components and calculates the expected life of each component. The system reviews historical data relating to a component, evaluates age degradation and extrapolates into the future to develop a life profile including measures of life left and useful life.

Claim 1 of the present application recites a method for managing internal components of nuclear reactor plants using a network-based system. The method includes the steps of developing inspection recommendations for specific internal components based on information received and information stored in the database, determining cracking susceptibility for specific internal components based on information received and information stored in the database, developing contingency options for repair or mitigation of specific internal components, and generating contingency outage schedules for the contingency options.

Spriggs et al. and Maguire et al., alone or in combination, do not describe nor suggest a method for managing internal components of nuclear reactor plants as recited in Claim 1. Particularly, Spriggs et al. and Maguire et al., alone or in combination, do not describe nor suggest a method that includes the steps of developing inspection recommendations for specific internal components based on information received and information stored in the database, determining cracking susceptibility for specific internal components based on information received and information stored in the database, developing contingency options for repair or mitigation of specific internal components, and generating contingency outage schedules for the contingency options. Rather, Spriggs et al. describe collecting data from a plurality of data

acquisition devices and generating alarms when the collected data is outside a predetermined allowable range. Spriggs et al. do not describe nor suggest developing inspection recommendations from the collected data, do not describe nor suggest determining cracking susceptibility of specific internal nuclear reactor plant components based on the collected data, and do not describe nor suggest developing contingency options for repair or mitigation of specific internal components, and generating contingency outage schedules for the contingency options. The Office Action, , at page 3, admits that "Spriggs does not specifically disclose and teach a method and system of developing inspection recommendations for specific internal components based on information received and determining cracking susceptibility for specific internal component based on information stored in a database".

Further, Maguire et al. describe that their system reviews historical data relating to a component, evaluates age degradation and extrapolates into the future to develop a life profile including measures of life left and useful life. The Office Action, at page 4, admits that Maguire et al. do not specifically disclose determining cracking susceptibility for specific internal components. Applicants disagree with the suggestion, at page 4 of the Office Action, that the Maguire et al. system calculates expected life of each component and would thus suggest and teach one skilled in the art the a key operating condition that would be determined/calculated would be cracking susceptibility of internal component. Maguire et al. do not describe nor suggest anything about cracking susceptibility. The Office Action further suggests that the plant operator would be able to calculate when cracking would occur from the teachings of Maguire et al. Applicants also disagree with this suggestion because there is no teaching by Maguire et al. of determining cracking susceptibility nor any motivation supplied by Maguire et al. to

determine cracking susceptibility. The only motivation to determine cracking susceptibility comes from Applicants' own application.

Further, there is no description or suggestion by Maguire et al. that their system is capable of determining cracking susceptibility for specific internal components based on information received and information stored in the database. Maguire et al. describe in broad, vague terms that their system evaluates age degradation, but do not define what that means. Maguire et al., at Col. 11, lines 1-55, describe evaluating a pump bearing and pump shaft, but do not describe nor suggest determining cracking susceptibility of specific components. Also, contrary to the suggestion at page of the Office Action, there is no description or suggestion by Maguire et al., at Col. 2, lines 61-67, that their system is capable of determining cracking susceptibility for specific internal components based on information received and information stored in a database. Rather Maguire et al., at Col. 2, lines 61-67, describe in vague terms that their system provides a method to evaluate effects of age degradation and to make recommendations to mitigate these aging effects. Applicants submit that there is no teaching of the specific step of determining cracking susceptibility for specific internal components, and that one skilled in the art would not interpret the teachings of Maguire et al. to mean determining cracking susceptibility for specific internal components.

Further, contrary to the suggestion on page 8 of the Office Action that Maguire et al., at Col. 2 lines, 19-28, describe developing contingency options for repair or mitigation of specific internal components, Maguire et al. do not describe nor suggest developing contingency options. Rather, Maguire et al. describe at Col. 2, lines 19-28, "expert rules that combine the deterministic and statistical models with the knowledge of experts to determine the current state of the object

and make recommendations concerning future actions concerning the object". Applicants submit that the vague description of making recommendations concerning future actions concerning an object is not the same as developing contingency options for repair or mitigation of specific internal components. Also, Maguire et al. do not describe nor suggest generating contingency outage schedules for the contingency options.

Further, Applicants submit that it would not be obvious to modify the teachings of Spriggs et al. with the teachings of Maguire et al. because there is no motivation to do so. As is well established, the mere assertion that it would have been obvious to one of ordinary skill in the art to have modified the teachings of Spriggs et al. with the teachings of Maguire et al. to obtain the claimed recitations of the present invention does not support a prima facie obvious rejection. First, the prior art relied upon, coupled with the knowledge generally available in the art at the time of the invention, must contain some suggestion or incentive that would have motivated the skilled artisan to modify a reference or combine references. See *In re Fine*, 837 F.2d 1071, 1074, 5 U.S.P.Q.2d 1596, 1958 (Fed. Cir. 1988); *In re Skinner*, 2U.S.P.Q.2d 1788, 1790 (Bd. Pat. App. & Int. 1986). Second, the proposed modification of the prior art must have a reasonable expectation of success, determined from the vantage point of the skilled artisan at the time the invention was made. See *Amgen, Inc. v. Chugai Pharm. Co.*, 927 F.2d 1200, 1209, 18 U.S.P.Q.2d 1016, 1023 (Fed. Cir. 1991); *In re Erlich*, 3 U.S.P.Q.2d 1011, 1016 (Bd. Pat. App. & Int. 1986). Lastly, the prior art reference or combination of references must teach or suggest all the limitations of the claims. See *In re Zurko*, 111 F.3d 887, 888-89, 42 U.S.P.Q.2d 1476, 1478 (Fed. Cir. 1997). And the teachings or suggestions, as well as the expectations of success, must come from the prior art, not applicant's disclosure. See *In re Vaeck*, 947 F.2d 488, 493, 20

U.S.P.Q.2d 1438, 1442 (Fed. Cir. 1991). In this case, Spriggs et al teach an industrial plant asset management system and Maguire et al. teach a deterministic, probabilistic, and subjective modeling system, and there is no indication that there is any benefit or need to modify the asset management system of Spriggs et al. with the modeling system of Maguire et al. Applicants submit that one skilled in the art would not modify the teachings of Spriggs et al. with the teachings of Maguire et al. because of the added complexity that this would bring to the Spriggs et al. system. Applicants respectfully submit that the only motivation to combine Spriggs et al. and Maguire et al. comes from Applicants' own application. Accordingly, Applicants submit that Claim 1 is patentable over Spriggs et al. and Maguire et al., alone or in combination.

Claim 6 has been canceled.

Claims 2-5, 7-21 and 23-32 depend from independent Claim 1. When the recitations of dependent Claims 2-5, 7-21 and 23-32 are considered in combination with the recitations of Claim 1, Applicants respectfully submit that Claims 2-5, 7-21 and 23-32 likewise are patentable over Spriggs et al. and Maguire et al., alone or in combination.

Claim 33 recites a network-based system for managing assets that includes a server system configured to develop inspection recommendations for specific internal components based on information received and information stored in the database, determine cracking susceptibility for specific internal components based on information received and information stored in the database, develop contingency options for repair or mitigation of specific internal components, and , generate contingency outage schedules for the contingency options.

Spriggs et al. and Maguire et al., alone or in combination, do not describe nor suggest a network-based system for managing assets as recited in Claim 33. Particularly, and at least for

the reasons set forth above, Spriggs et al. and Maguire et al., alone or in combination, do not describe nor suggest a network-based system for managing assets that includes a server system configured to develop inspection recommendations for specific internal components based on information received and information stored in the database, determine cracking susceptibility for specific internal components based on information received and information stored in the database, develop contingency options for repair or mitigation of specific internal components, and generate contingency outage schedules for the contingency options. Rather, Spriggs et al. describe collecting data from a plurality of data acquisition devices and generating alarms when the collected data is outside a predetermined allowable range. Spriggs et al. do not describe nor suggest developing inspection recommendations from the collected data, and do not describe nor suggest determining cracking susceptibility of specific internal nuclear reactor plant components based on the collected data.

Further, and as explained above, Maguire et al. describe that their system reviews historical data relating to a component, evaluates age degradation and extrapolates into the future to develop a life profile including measures of life left and useful life. However, contrary to the suggestion on page 4 of the Office Action, there is no description or suggestion by Maguire et al. that their system is capable of determining cracking susceptibility for specific internal components based on information received and information stored in the database. Maguire et al. describes in broad, vague terms that their system evaluates age degradation, but do not define what that means. Maguire et al., in Col. 11, lines 1-55, describe evaluating a pump bearing and pump shaft, but do not describe nor suggest determining cracking susceptibility of specific components. Also, contrary to the suggestion on page 8 of the Office Action that Maguire et al.,

at Col. 2 lines, 19-28, describe developing contingency options for repair or mitigation of specific internal components, Maguire et al. do not describe nor suggest developing contingency options. Rather, Maguire et al. describe at Col. 2, lines 19-28, "expert rules that combine the deterministic and statistical models with the knowledge of experts to determine the current state of the object and make recommendations concerning future actions concerning the object". Applicants submit that the vague description of making recommendations concerning future actions concerning an object is not developing contingency options for repair or mitigation of specific internal components. Accordingly, Applicants submit that Claim 33 is patentable over Spriggs et al. and Maguire et al., alone or in combination.

Claim 59 has been canceled.

Claims 34-35 and 37-58, 60-64, 66-72, and 74-76 depend from independent Claim 33. When the recitations of dependent Claims 34-35 and 37-58, 60-64, 66-72, and 74-76 are considered in combination with the recitations of Claim 33, Applicants respectfully submit that Claims 34-35 and 37-58, 60-64, 66-72, and 74-76 likewise are patentable over Spriggs et al. and Maguire et al., alone or in combination.

For the reasons set forth above, Applicants respectfully request that the Section 103(a) rejection of Claims 1-21, 23-35, 37-64, 66-72, and 74-76 be withdrawn.

The rejection of Claims 22, 36, 65, and 73 under 35 U.S.C. § 103(a) as being unpatentable over Spriggs et al. (US 6,421,571) in view of Maguire et al. (US 5,331,579), and further in view of Bodo et al. (US 6,122,239) is respectfully traversed.

At least for the reasons explained above, independent Claims 1 and 33 are submitted to be patentable over Spriggs et al. and Maguire et al., alone or in combination.

Bodo et al. is cited for teaching a method and system where the sending component functions in response to a voice command. Bodo et al. is not cited for, and does not teach a method that includes the steps of developing inspection recommendations for specific internal components based on information received and information stored in the database, determining cracking susceptibility for specific internal components based on information received and information stored in the database, and developing contingency options for repair or mitigation of specific internal components. Also, Bodo et al. is not cited for, and does not teach a server system configured to develop inspection recommendations for specific internal components based on information received and information stored in the database, determine cracking susceptibility for specific internal components based on information received and information stored in the database, and develop contingency options for repair or mitigation of specific internal components. As explained above, Spriggs et al. and Maguire et al., alone or in combination, do not describe nor suggest such a method or such a system.

Spriggs et al., Maguire et al., and Bodo et al., alone or in combination, do not describe nor suggest a method for managing internal components of nuclear reactor plants as recited in Claim 1 or a network-based system for managing assets as recited in Claim 33. Particularly, and as explained above, Spriggs et al., Maguire et al., and Bodo et al., alone or in combination, do not describe nor suggest a method that includes the steps of developing inspection recommendations for specific internal components based on information received and information stored in the database, determining cracking susceptibility for specific internal components based on information received and information stored in the database, and developing contingency options for repair or mitigation of specific internal components..

Further, Spriggs et al., Maguire et al., and Bodo et al., alone or in combination, do not describe nor suggest a server system configured to develop inspection recommendations for specific internal components based on information received and information stored in the database, determine cracking susceptibility for specific internal components based on information received and information stored in the database, and develop contingency options for repair or mitigation of specific internal components.. Accordingly, Applicants submit that independent Claims 1 and 33 are patentable over Spriggs et al., Maguire et al., and Bodo et al., alone or in combination.

Claim 22 depends from independent Claim 1 and Claims 36, 65, and 73 depend from independent Claim 33. When the recitations of dependent Claims 22 and 36, 65, and 73 are considered in combination with the recitations of Claims 1 and 33 respectively, Applicants respectfully submit that Claims 22, 36, 65, and 73 likewise are patentable over Spriggs et al., Maguire et al., and Bodo et al., alone or in combination.

For the reasons set forth above, Applicants respectfully request that the Section 103(a) rejection of Claims 22, 36, 65, and 73 be withdrawn.

In view of the foregoing amendments and remarks, all the claims now active in this application are believed to be in condition for allowance. Favorable action is respectfully

solicited.

Respectfully submitted,

A handwritten signature in black ink, reading "Michael Tersillo". The signature is fluid and cursive, with a long horizontal stroke extending from the end of the name.

Michael Tersillo
Registration No. 42,180
ARMSTRONG TEASDALE LLP
One Metropolitan Square, Suite 2600
St. Louis, Missouri 63102-2740
(314) 621-5070